
Allies in fomenting agricultural renewal for Colombia



Colombia has made important progress in negotiating an end to five decades of armed internal conflict. The prospect of peace has brought about new opportunities to foment a renewal of agriculture in this country, which respond to the immediate needs of smallholder farmers, while offering them a more prosperous future, with improved incomes and well-being.

A top national priority now is to build the foundations for peace in Colombia's countryside through such initiatives as *Misión Rural (Rural Mission)* and policies such as the *Plan Nacional de Desarrollo (National Development Plan)*, which seek to boost rural incomes and enhance livelihoods. In CIAT, we support these efforts by making new knowledge, improved technologies, and first-rate human resources available to our host country, with emphasis on climate change mitigation and adaptation; natural resource management; linking farmers to markets; site-specific agriculture; sustainable livestock production; and communications and knowledge management for development.

Focusing on these and other themes, the Center contributes to policy development and well-targeted investment decisions through its research with the CGIAR Consortium – a global research partnership for a food-secure future – and in collaboration with national organizations, such as the Colombian Corporation for Agricultural Research (CORPOICA, its Spanish acronym), the Colombian Ministry of Agriculture and Rural Development (MADR), universities, trade and industrial associations, and other research centers.

Land and natural resources management

What will it take to achieve abundant harvests today without exhausting the soils on which future production depends?

Farmers need answers to this and similar questions if they are to succeed in managing land resources in a more sustainable manner, based on findings from the use of new tools and methods to determine greenhouse gas emissions and carbon sequestration under different land use options, such as forest, crops, and pastures. By improving soil productivity and quality, farmers can create a new role for agriculture that takes advantage of new schemes involving payment for ecosystem services to restore degraded land and preserve the environment.

Linking farmers to markets

How can market weaknesses be overcome to provide easier access for low-income producers? And what can the public sector do through public-private initiatives to create new opportunities for smallholder farmers?

Socio-economic studies employing quantitative and qualitative methods can help find solutions, which through action research translate into rural development and improved policies that strengthen the market links of smallholder farmers. This research can also contribute to the creation of more inclusive business models, help strengthen value chains, facilitate the flow of market information, and enhance access to technologies for adding value to agricultural products, pre- and postharvest.

Sustainable livestock production

How can livestock production have positive impacts both on human welfare and equity as well as on the environment through interventions at different links in livestock value chains? What must be done to make livestock production more competitive in local and international markets?

These challenges are catalyzing the development of options for sustainable livestock production, which involve successful integration of improved forages into smallholder production systems. These generate both economic and environmental benefits, while enabling farmers to compete more effectively in markets, including diversification into high-value forage products, such as silage and forage seed or cuttings for sale to other farmers.

Climate Change

What can be done to reduce the impacts of rising temperatures on crop yields? And how can agriculture be made more resilient in the face of extreme weather events?

In response to these concerns, CIAT scientists are helping prepare Colombia's agricultural systems to cope with climate change through adaptive measures that respond to climate variability and other impacts. To this end, we are identifying short- and long-term responses that can ensure the sustainability of the agriculture and livestock sectors through more efficient use of natural resources, better handling of climate risks, and the use of crop modeling.

Site-specific agriculture

How, where, and when to plant? Which crops are most suited to specific farm, soil, and climate conditions? Which crop management practices are most appropriate?

The central aim of CIAT's site-specific agriculture group is to close the gap between production potential and the crop yields farmers actually achieve. With new information technologies, farmers can obtain, use, and exchange detailed information about their farms to provide a basis for better management decisions that capitalize on their unique growing conditions.

Knowledge management

What can we do to improve smallholders' access to resources that enable them to improve agricultural productivity and strengthen their competitive advantage? How can we incorporate knowledge management effectively into research?

Many obstacles to rural development can be overcome through improved management of knowledge through innovative communication tools and methods that foster learning and bring research results within the reach of rural communities and local organizations. CIAT contributes to the development and implementation of communications and knowledge management strategies with diverse user groups.

CIAT in Colombia

CIAT supports Colombia's effort to foment agricultural renewal as a key condition for achieving peace in the countryside and building a more equitable and thriving national economy.

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